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ABSTRACT

The Oregon State Department of Education mandates age-appropriate curricula for all grade levels on infectious diseases, including AIDS, ARC, HIV, and Hepatitis B. The objectives of this study were: (1) to determine the extent to which AIDS education was occurring in three remote rural Oregon school districts; (2) to examine the focus of the curriculum across grade levels; and (3) to compare the instructional practices with the state guidelines. Two questionnaires were designed for application at elementary and secondary education levels. They reflect curricular objectives of the Oregon State Department of Education. The questions were constructed to determine if the teacher had implemented an AIDS education curriculum, and if so, how much time was devoted to each objective. In May 1990, the questionnaires were distributed to all elementary and secondary school teachers in the three small school districts. Results show that 53% of the elementary teachers and 23% of secondary teachers incorporated AIDS education into their curriculum. The results suggest that rural school districts may lack local policy and curricular programs for implementing AIDS education. The report contains tables of the objectives with the percent of teachers at each level addressing each objective, and the mean amount of time spent on each objective. This paper contains 18 references. (KS)

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AIDS Education in Rural Oregon School Districts: Compliance with State Curriculum Guidelines

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OBJECTIVES

The objectives of this study were: (1) to determine the extent to which AIDS education was occurring in three remote rural Oregon school districts; (2) to examine the focus of the curriculum across grade levels; and (3) to compare the instructional practices with the state guidelines.

PERSPECTIVES

A number of researchers, including Christopher and Cate (1985), have discussed the high rate of teen age pregnancies. It is known that adolescents are uncomfortable about purchasing and generally ineffective in the use of contraceptives, particularly the younger and rural teenager (McCormick, Izzo, & Folcik, 1985). Also, the sexual behavior of adolescents is more influenced by the sexual attitudes and behavior of their friends (Billy & Udry, 1985; Pope, Westerfield & Walker, 1985) than by their instruction in school. Therefore, it is not surprising that an estimated one in seven teenagers is carrying some form of sexually transmitted disease (STD). Unfortunately, the same

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activities that lead to pregnancy and STD's could lead to being infected with AIDS (Mathison, 1986).

In addition, large numbers of teenagers have experimented with drugs, perhaps resulting in hundreds of thousands being exposed to AIDS. In short, teenagers have the potential of becoming a very high-risk population. Many of the AIDS cases acquired the disease as teenagers (Mathison, 1986).

Unfortunately, a belief which is often encountered in rural areas is that their distance from urban centers provides a protective barrier, an insulation against the social problems of the "big city." Generally coupled with this belief are two additional positions: the family in rural areas is a close knit unit with shares work, play, and values which are expressed in behavior; and instruction in regard to values, particularly as they relate to sexual behavior, belongs in the home and church. These positions act to impede a recognition that AIDS is a threat to the health of their youth and action at the school level to help resolve it.

Needless to say, students with AIDS are becoming an ever increasing problem for public schools, and policies are needed to guide staff in their contacts with such students. Through a series of court cases, public schools are increasingly mandated to serve AIDS infected students (Fields, 1987; Roe, 1987; Splitt, 1986). Those charged with making and executing educational policy must address this arena. Schools must have carefully thought out and implemented policies concerning AIDS infected students and personnel (Splitt, 1986; Strouse, 1988). Because of the he many problems faced (Manning & Thompson, 1987), including ethical considerations (Walters, 1988), a

number of people have discussed various strategies and policies for handling AIDS cases in the schools (Manning & Thompson, 1987; National School Boards Association, 1986; Strone & Broadwell, 1989). Despite the obvious need for carefully developed policies, a survey of public school districts in Oregon found that a majority of them had no adopted policy, written or unwritten, toward students or personnel with AIDS, and this was uniquely true in rural area (Strouse, 1988).

Students seem to receive most of their information on AIDS from the mass media, and the information presented is frequently superficial and may provide inadequate information to secondary students (Price, Desmond, & Kukulka, 1985) -- a lack of accurate information could be fatal. Rural middle school students seem to confuse sexual practices to prevent pregnancy with preventive practices for AIDS (Hales, McGrew, & Nizic-Anderson, 1990). Partially in response to this danger, there has been a growing recognition by parents, educators, advocacy groups, state politicians, and the Surgeon General of the urgency of introducing effective sex (and AIDS) education programs in our schools, beginning in the elementary grades. Many states, for example Iowa (Iowa State Department of Education, 1989), have mandated that AIDS education be implemented.

Oregon public schools are mandated by OAR 581-22-412 to provide age-appropriate curricula for all grade levels on infectious diseases, including AIDS, ARC, HIV, and Hepatitis B. The State Department of Education has issued curricular guidelines for districts to follow developing an AIDS education program which addresses this need in a manner appropriate to the local educational environment. From personal

observations and discussions with school personnel, a question emerges: have school districts implemented an AIDS educational curriculum which addresses the goals of the state mandate and are teachers following it? This is a particularly potent question for rural districts which a recent study (Strouse, 1988) found to be lacking in policies concerning AIDS students.

METHODS AND DATA SOURCES

The two questionnaires which were used in this study were designed to reflect the curricular objectives of the Oregon State Department of Education, modified for application at two levels of education (elementary and secondary). The questions were constructed to determine if the teacher had implemented an AIDS education curriculum, and if so, how much time was devoted to each of the state curricular objectives. In May, 1990, it was distributed to all elementary and secondary school teachers in three small school districts in a relatively remote rural area of Northeastern Oregon. The responses were summarized with descriptive statistics, including percentages.

RESULTS AND CONCLUSIONS

In examining the responses of the elementary school teachers, 53% indicated they had incorporated AIDS education in their curriculum; 47% had not. When the sample was partitioned into upper elementary (grades 4-6) and primary (grades K-3), 71% of the upper elementary teachers had incorporated AIDS education into their curriculum; only 43% of the primary teachers had done so. Since AIDS and sex

education are often integrated, that fewer primary teachers taught about AIDS is not surprising. (See Table 1.)

Table 1. Percent of Teachers who Incorporated AIDS Education in Their Curriculum Examined by Grade Level

Level	Grade	Percent Yes	Percent No
Secondary	12	12.5	87.5
	11	18.2	81.8
	10	20.0	80.0
	9	00.0	100.0
	8	30.0	70.0
	7	30.0	70.0
Subtotal		18.45	81.5
Elementary	4-6	71.4	28.6
	K-3	42.9	57.1
Subtotal		57.15	42.85

Of the rural secondary school teachers (junior high and high school), only 27% taught at a single grade level; 32% taught at four or five levels. Therefore, no logical grouping of teachers by grade level was possible; the questionnaire did permit examining what they did at the various grade levels. Less than 23% of the teachers included AIDS education in their instruction at any level. Examining across the grade levels, 30% of the teachers had incorporated some AIDS education in their 7th and 8th grade curriculum, 20% had done so at the 10th grade level, 18% had done so at the 11th grade level, 13% had done so at the 12th grade level, and none had done so at

the 9th grade level. Given the state mandate for AIDS education and that over 70% of the upper level teachers in the feeder elementary schools have some AIDS education in their curriculum, this relatively low involvement of secondary school teachers in instruction in AIDS education is surprising, particularly in regard to the ninth grade.

Because the state curricular guidelines were differentiated by grade level, two different questionnaires were presented to the teachers; the results will be presented first for elementary teachers and then for secondary teachers. Of the 17 objectives on the elementary teachers' questionnaire which were linked to state objectives, 65% were addressed by 43% of the teachers or less; all were at the upper elementary level. None of the objectives were addressed by more than 50% of the teachers. (The percent who addressed each state objective is indicated in Table 2.) In interpreting this table, please keep in mind that 47% of the elementary teachers stated that they did not cover AIDS in their curriculum.

At the primary level, two objectives were addressed by about 29% of the teachers:

1] Understand that some diseases are communicable and that some are not.

2] Decide about and demonstrate procedures for care of minor cuts and injuries.

Approximately 14% addressed the following eight objectives:

1] Understand that the spread of communicable diseases, including AIDS, can be prevented.

2] Practice behaviors that reduce spread of communicable diseases within the context of daily activity.

3] Understand the AIDS cannot be caught by proximity to someone who has it.

4] Illustrate responses for emergency situations.

5] Acceptance of self and positive regard for self and others.

6] Recognize risk behaviors and methods of prevention.

7] Comprehend the difference between communicable and noncommunicable diseases.

8] Comprehend the purpose of infection control and its procedures.

Six objectives were not addressed at all:

1] Synthesize risk behaviors and methods for their prevention.

2] Explain how HIV affects the immune system.

3] Comprehend how human immunodeficiency virus is spread.

4] Explain how HIV infection and AIDS can be prevented.

5] Evaluate information on HIV disease and community response to persons with AIDS.

6] Explain his/her feelings about persons infected with HIV, have ARC or AIDS.

The mean amount of time expended on each objective during the year by those primary teachers who addressed that objective in their curriculum is shown in Table 3.

Table 2. For Each State Objective for AIDS Education, the Percent Elementary School Teachers Addressing It in Instruction.

Objective	Primary	Upper	Total
Understand that some diseases are communicable and some are not.	28.6	71.4	50.0
Understand that the spread of communicable diseases, including AIDS, can be prevented.	14.3	71.4	42.9
Practice behaviors that reduce spread of communicable diseases.	14.3	71.4	42.9
Understand that AIDS cannot be caught by proximity to someone who has it.	14.3	85.7	50.0
Decide about and demonstrate procedures for care of minor cuts and injuries.	28.6	71.4	50.0
Illustrate responses for emergency situations.	14.3	85.7	50.0
Acceptance of self and positive regard for self and others.	14.3	85.7	50.0
Recognize risk behaviors and methods of prevention.	14.3	85.7	50.0
Analyze a list of risk and no-risk behaviors that can jeopardize one's health.	14.3	28.6	21.4
Synthesize risk behaviors and methods for their prevention.	00.0	85.7	42.9
Comprehend the difference between communicable and non-communicable diseases.	14.3	57.1	35.7
Comprehend the purpose of infection control and its procedures.	14.3	42.9	28.6
Explain how HIV affects the immune system.	00.0	85.7	42.9
Comprehend how human immunodeficiency virus is spread.	00.0	85.7	42.9
Explain how HIV infection and AIDS can be prevented.	00.0	85.7	42.9
Evaluate information on HIV disease and community response to persons with AIDS.	00.0	85.7	42.9
Explain his/her feelings about persons infected with HIV, have ARC or AIDS.	00.0	85.7	42.9

With the exception of acceptance of self and positive regard for self and others (mean = 5 hours), analyze a list of risk and no-risk behaviors that can jeopardize one's health (mean - 4 hours), illustrate responses for emergencies (mean = 1 hour), and understand that some diseases are communicable and some are not (mean - 0.6 hours), the average amount of time spent on each objective was 0.3 hours or less. Essentially, all of the objectives specific to AIDS fell in this latter category. Considering that 71% of the primary school teachers did not address AIDS in their curriculum and that, of those who did, less than one hour was expended on the seven objectives which are AIDS specific, we can conclude that AIDS education receives little attention at the primary level. If the State intended that AIDS education be a part of the primary school curriculum, this intent was not realized in these rural schools.

At the upper elementary level 71% indicated that they included AIDS education in their curriculum. Approximately 86% of these upper elementary teachers addressed ten objectives, and 71% addressed an additional four objectives. Thus, only three objectives were addressed by 57% or less:

1. Analyze a list of risk and no-risk behaviors that can jeopardize one's health (29%).
2. Comprehend the purpose of infection control and its procedures (43%).
3. Comprehend the difference between communicable and non-communicable diseases (57%).

It is interesting to note that of the seven AIDS specific objectives, 86% of the teachers indicated that they addressed them in their curriculum, even though only 71% indicated on the general question that they incorporated AIDS education in their curriculum.

The mean amount of time expended on each objective during the year by those upper elementary teachers who addressed that objective in their curriculum is show in Table 3. For five objectives, on the average, these teachers expended in excess of two hours each on:

1. Analyze a list of risk and no-risk behaviors that can jeopardize one's health, (mean = 5.5 hours).
2. Synthesize risk behaviors and methods for their prevention (mean = 3.0 hours).
3. Comprehend how human immunodeficiency virus is spread (mean = 2.8 hours).
4. Recognize risk behaviors and methods of prevention (mean = 2.5 hours).
5. Acceptance of self and positive regard for self and others (mean - 2.1 hours).

An additional six objectives received over one hour's instruction, on the average, by those who addressed it at all:

1. Comprehend the purpose of infection control and its procedures (mean = 1.7 hours).
2. Illustrate responses for emergencies (mean = 1.6 hours).

Table 3. The Mean Time in Hours Expended by Elementary Teachers Who Provide AIDS Education on Each State Objective

OBJECTIVE	Primary		Upper		TOTAL	
	Mean	S	Mean	S	Mean	S
Understand that some diseases are communicable and some are not.	0.58	0.16	0.90	0.31	0.72	0.30
Understand that the spread of diseases, including AIDS, can be prevented.	0.25	0.00	0.93	0.32	0.82	0.36
Practice behaviors that reduce spread of communicable diseases.	0.33	0.00	1.33	1.01	1.17	1.00
Understand that AIDS cannot be caught by proximity to someone who has it.	0.25	0.00	0.65	0.13	0.59	0.13
Decide about and demonstrate procedures for care of minor cuts and injuries.	0.25	0.01	1.17	0.87	0.90	0.79
Illustrate responses for emergencies.	1.00	0.00	1.64	1.84	1.55	1.62
Acceptance of self and positive regard for self and others.	5.00	0.00	2.08	2.03	2.50	2.79
Recognize risk behaviors and methods of prevention.	0.25	0.00	2.46	2.67	2.14	2.89
Analyze a list of risk and no-risk behaviors that can jeopardize one's health.	4.00	0.00	5.50	20.25	5.00	14.00
Synthesize risk behaviors and methods for their prevention.			3.00	0.00	3.00	0.00
Comprehend the difference between communicable and non-communicable diseases.	0.33	0.00	0.88	0.52	0.77	0.89
Comprehend the purpose of infection control and its procedures.	0.33	0.00	1.67	2.72	1.33	2.43
Explain how HIV affects immune system.			0.69	1.06	0.69	1.06
Comprehend how human immunodeficiency virus is spread.			2.79	2.92	2.79	2.92
Explain how HIV infection and AIDS can be prevented.			1.46	0.59	1.46	0.59
Evaluate information on HIV disease and community response to persons with AIDS.			1.07	0.37	1.07	0.37
Explain his/her feelings about persons infected with HIV, have ARC or AIDS.			0.75	0.27	0.75	0.27

3. Explain how HIV infection and AIDS can be prevented (mean = 1.5 hours).
4. Practice behaviors that reduce spread of communicable diseases (mean = 1.3 hours).
5. Decide about and demonstrate procedures for care of minor cuts and injuries (mean = 1.2 hours).
6. Evaluation information on HIV disease and community response to persons with AIDS (mean = 1.1 hours).

The remaining six objectives received between 0.7 and 0.9 hours of instruction each. In contrast to the primary school teachers, on the most part, the upper elementary teachers did address AIDS education in their curriculum; only three objectives were addressed by less than 71% of these teachers and did not include the AIDS specific objectives. It would appear, at the upper elementary level, that there is an attempt by most teachers to address AIDS-related objectives in their curriculum in a manner that is reasonably consistent with the State mandate. Nevertheless, with 30% of the teachers failing to address AIDS education issues in their curriculum, a significant number of upper elementary children could be at risk as a direct result of an opportunity to acquire needed information. In addition, for all practical purposes, any risk associated with primary school children which the school could help reduce is unaddressed.

Partially, as a result of the differences in State guidelines and human resources in the small schools across grade levels, grade 7 through 12 have been grouped together as secondary. Thus, for this study, junior high school is seen as more

secondary than elementary. As was shown in Table 1, only a small percent of the teachers incorporated AIDS education in their curriculum, with the greatest amount being at the 7th and 8th grade levels (30%), and the least at the 9th grade (0%). Examined across grade levels, the percent of teachers addressing the various objectives ranged from a low of 5.3% for HIV and AIDS treatments, research and future prospects to a high of 8.3% for the effect of HIV on the body's immune system. (See Table 4.) At the 7th and 8th grade levels, between 9.1% and 13.6% of the teachers addressed each objective in their instruction. The range for the 10th grade teachers was between 4.5% and 9.1%; for the 11th grade teachers 9.1% addressed each objective. For the 12th Grade teachers the range was from none for 60% of the objectives to 4.5% for the remaining objectives. No AIDS instruction occurred at the 9th grade level. Although it is tempting to explain the lack of instruction about AIDS by most teachers as being the result of departmentalization, this would not account for the lack of instruction at the 9th grade level, and a failure to address a significant number of the objectives at the 12th grade level. Granted that children at the 7th and 8th grade levels have little choice in the courses which they take, it is possible that instruction occurred in the science classes. Accepting this position (and figuring that 13.6% somewhat reflects the science teacher staffing), three objectives would not have been addressed in one-half the science classes:

1. The social implications of the AIDS epidemic to further integrate unit information.

2. Strategies involved in responsible decision-making to prevent HIV infection.

3. HIV and AIDS treatments, research and future prospects.

The situation is particularly disturbing for the 9th through 12th grade levels. No instruction in the grade. Since students have greater choice of courses in grade 10 through 12, and recognizing the relatively small number of teachers addressing AIDS in their instruction, it is quite likely that a majority of high school students do not receive AIDS education in these rural schools. It would appear that the State mandate has had little impact on the curriculum of the secondary schools. This failure suggests that rural teenagers may have little school acquired knowledge of AIDS.

For those secondary teachers who address AIDS in their curriculum, the mean amount of time expended on each objective at each grade level is presented in Table 5. Only one objective received over one hour of instruction at the 7th grade level (mean = 4.9) and 8th grade level (mean = 2.9): the causes of communicable diseases. The mean amount of time expended at these grade levels on the remaining nine objectives ranged from 0.46 hours to 0.81 hours. Eight of the ten items received over one hour of instruction at the 10th grade level (range 1.0 - 1.5). Those receiving less were:

1. Infection control methods (mean = 0.8).

2. HIV and AIDS treatments, research and future prospects (mean = 0.5).

Again, at the 11th grade level, only one objective received over one hour of instruction: The causes of communicable diseases (mean = 1.5). For the remaining objectives, the mean amount of instructional time at the 11th grade level ranged from 0.3 to 0.7 hours.

Each of the four objectives addressed in the 12th grade received at least one hour of instruction:

1. The causes of communicable diseases (one hour).
2. The effect of HIV on the body's immune system (one hour).
3. The social implications of the AIDS epidemic to further integrate unit information (2.5 hours).
4. Strategies involved in responsible decision-making to prevent HIV infection (2.5 hours).

IMPORTANCE OF THE STUDY

AIDS is a problem of epidemic proportions. Because teenagers generally act as if they are immune to the life threatening dangers around them, it is critical that they be provided AIDS education, not only addressing their personal health needs, but also how to relate with those who have contacted this disease. The Oregon Department of Education has recognized this need, made policy decisions on the basis of this recognition, and has endeavored to implement these policy decisions in the form of State guidelines for a mandated AIDS education program.

Table 4. For Each State Objective for AIDS Education the Percent of Secondary School Teachers Addressing it in Instruction, Examined by Grade Level

Teach About:	7	8	9	10	11	12	Total
The causes of communicable diseases.	13.6	13.6	0.0	4.5	9.1	4.5	7.6
How human immuno-deficiency virus is transmitted.	13.6	13.6	0.0	9.1	9.1	0.0	7.6
The effect of HIV on the body's immune system.	13.6	13.6	0.0	9.1	9.1	4.5	8.3
The symptoms of AIDS-related complex (ARC) and AIDS.	13.6	13.6	0.0	9.1	9.1	0.0	7.6
The high, low and no-risk behaviors pertaining to HIV transmission.	13.6	13.6	0.0	9.1	9.1	0.0	7.6
The various prevention methods for HIV transmission into personal behavior choices.	13.6	13.6	0.0	9.1	9.1	0.0	7.6
Infection control methods.	13.6	13.6	0.0	9.1	9.1	0.0	7.6
The social implications of the AIDS epidemic to further integrate unit information.	9.1	9.1	0.0	9.1	9.1	4.5	6.8
Strategies involved in responsible decision-making to prevent HIV infection.	9.1	13.6	0.0	9.1	9.1	4.5	7.6
HIV and AIDS treatments, research and future prospects.	9.1	9.1	0.0	4.5	9.1	0.0	5.3

The results of this study suggest that rural school district may lack local policy and curricular programs for meeting this objective, depending on compliance by the individual action of their teachers. Although some progress is being made, these findings suggest that too little time is expended on meeting the specific objectives proposed by the State. Those who are responsible for setting district policy might surmise from this study that more attention is needed at a policy level.

Table 5. The Mean Time in Hours Expended by Secondary Teachers Who Provide AIDS Education on Each State Objective, Examined by Grande Level

Objective	Statistic	7	8	10	11	12	TOTAL
The cause of communicable diseases.	Mean S	4.92 1.12	2.92 0.53	1.50 0.00	1.82 0.59	1.00 0.00	1.22 0.67
How human immunodeficiency virus is transmitted.	Mean S	0.47 0.15	0.47 0.15	1.00 0.00	0.54 0.04		0.59 0.36
The effect of HIV on the body's immune system.	Mean S	0.47 0.51	0.64 0.07	1.50 0.25	0.42 0.01	1.00 0.00	0.74 0.36
The symptoms of AIDS-related complex (ARC) and AIDS.	Mean S	0.47 0.51	0.47 0.51	1.00 0.00	0.67 0.11		0.62 0.37
The high, low and no-risk behaviors pertaining to HIV transmission.	Mean S	0.81 0.24	0.97 0.53	1.00 0.00	0.42 0.01		0.82 0.28
The various prevention methods for HIV transmission into personal behavior choices.	Mean S	0.46 0.00	0.64 0.07	1.00 0.00	0.33 0.00		0.55 0.10
Infection control methods.	Mean S	0.46 0.00	0.64 0.07	0.76 0.06	0.29 0.01		0.49 0.11
The social implications of the AIDS epidemic to further integrate unit information.	Mean S	0.46 0.00	0.46 0.00	1.00 0.00	0.54 0.34	2.50 0.00	0.82 0.41
Strategies involved in responsible decision-making to prevent HIV infection.	Mean S	0.46 0.00	0.64 0.07	1.00 0.00	0.67 0.00	2.50 0.00	0.80 0.39
HIV and AIDS treatments, research and future prospects.	Mean S	0.46 0.00	0.71 0.09	0.50 0.00	0.67 0.00		0.83 0.75

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